

XC. *Extracts of two Letters of Thomas Hope, M. D. to John Clephane, M. D. F. R. S. concerning Monsieur Daviel's Method of couching a Cataract.*

Read Nov. 16, 1752. **S**INCE I received your last, I had heard of a new method of performing the operation for the cure of the cataract, but did not care to say any thing of it, until I had seen it myself, and had inquired into the success of it. M. Daviel, a surgeon of this place, was the first, who, in 1745, began to put it in practice, and has at last brought it to perfection; of which he has given a memoir to the Academy of Sciences of 115 operations, 100 of which have succeeded. A few days ago I saw him perform it on two persons, of which take the following description:

After having placed the patient in a right light in a chair, he places himself over-against, and somewhat higher than, the patient: an assistant holds the head steady, another keeps the upper eye-lid open; he, with his left hand, keeps open the lower eye-lid. Then he takes an instrument like a lancet, of a myrtle-form point, a little crooked upwards, and fixed in a handle, and, making the patient look upwards, he pierces the *cornea transparens* at its lower circumference, just where it joins the *sclerotica*, conveys the point of the instrument between the *cornea* and *iris* upwards, beyond the pupil; he enlarges this opening on each side by the same instrument: he then takes
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out this instrument, and introduces another of the shape of a narrow lancet, made round at the point, fixed in a handle: with the cutting sides of this he enlarges the opening. Taking out this, he introduces a pair of crooked scissars, enlarges the opening on each side by different snips, always as near as he can to the circumference of the *cornea transparens*, until he has made the opening round two thirds of the *cornea transparens*: He then takes out the scissars, and, with a small instrument like an ear-picker, he raises the *cornea*, and having in his right hand a cataract-needle, broader and stronger than the common, and pointed like a lancet, he cuts the *capsula* of the crystalline thro' the pupil; then, pressing gently the globe of the eye with his finger from below upwards, the crystalline slips out of the *capsula*, and drops out of the eye.

Upon the first puncture, the aqueous humour coming out, the *cornea* and *iris* join together: and it requires great dexterity, and a very steady hand, to introduce the instruments so as not to wound the *iris*, which would endanger the eye.

Tho' the operation lasted above two minutes, the patient, to my great surprize, never complained of any pain; and, upon my asking him, he said, he felt nothing but a tickling. By which it appears the *cornea* is not much more sensible than the nail of one's finger. And this operation, which seems so cruel to a by-stander, does not give so much pain as couching in the usual manner. It is to be preferr'd to couching in many respects. It may be performed at all times, and in all kinds of cataracts, whether they are come to maturity or not. Moreover one avoids many inconveniencies and accidents, which

often baffled the success of the best operations; such as the rising again of the cataract, violent defluxions and inflammations, which often destroyed the eye, the hurting of the vitreous humour, which seldom failed in couching, &c.

In both the operations, which I saw, the patient, immediately after, could distinguish all large objects in the room.

Paris, Sept. 25, 1752.

Read Dec. 11, 1752. **I**N regard to the remarks made by the skilful in your letter, he (M. Daviel) says, that he has found, by experience, that all those instruments are necessary: and as to the extent of the incision, he says, that he seldom makes it above one half of the circumference of the *cornea transpa-*
rens; and that a smaller opening would not suffice to let the crystalline slip out easily; the diameter of which, in general, not being above a line less than that of the *cornea*, and, in some cases, within half a line, insomuch that, in order to make it pass thro' the *pupilla*, he has been obliged to give a snip of the scissars to the *iris*, which, he assures me, is attended with no bad consequences.

In answer to what is said, that it has been practised before, and that Taylor formerly performed it, he endeavours to prove, that it never was, excepting in cases where the crystalline had, by some accident, slipped thro' the *pupilla* into the anterior chamber.

In regard to the operation, there is some mention made of it among the Arabians, as what they had heard of; but the operation is not described particularly any-where. One convincing reason, that

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it never was carried into practice among the ancients, is, that, had they made the extraction of the cataracts, they must have found it to be the crystalline humour. and not remained in the error they have all fallen into, that the cataract was a membrane form'd in the aqueous humour.

In regard to Taylor, he may have attempted, but never did carry it into practice; else he would not have fail'd to have publish'd it in the numberless productions he has given. I know, that, in 1743, I follow'd him in Edinburgh for six months, where he performed above 100 operations of the cataract by couching; but never once attempted this way, nor ever mention'd it but in the case, where the crystalline is lodged in the anterior chamber; which operation has been described in many authors. So that I think Mr. Daviel may be truly said to be the first, who has brought this method into general practice for the cure of a cataract.

I think the greatest risk one runs in this operation is the pushing out of the humours of the iris thro' the opening, which forms a *staphyloma*; and I find this has been the case in some of those that have failed; and it is not easy to contrive a bandage upon that part, to make a compression equal to the resistance of the *cornea* before it was open'd. I am,

Dear Sir,

Yours, &c.

Tho. Hope.